

REMARKS

Favorable reconsideration and allowance of the present application are respectfully requested in view of the following remarks. Claims 1-39 remain pending. Claims 1, 9, 11, and 29 are independent.

ALLOWABLE SUBJECT MATTER

Applicant appreciates that claims 29-39 are indicated to be allowable. Applicant further appreciates that claims 17-18 and 20-28 are indicated to define allowable subject matter.

§ 103 REJECTION - STANTON, SAMPSELL

Claims 1, 3-15, and 19 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Stanton (USP 5,917,558) in view of Sampsell (USP 5,233,385). *See Final Office Action, page 7, Item 3.* Applicant respectfully traverses.

First, as indicated in the previous Reply filed on March 24, 2004 (hereinafter "March 24 Reply"), Stanton and Sampsell cannot properly be combined. Stanton describes, at best, the situation described regarding the conventional system as depicted in Figure 9, of the present specification. More specifically, Stanton describes a projection video system that includes a lamp

12 with all light from the lamp 12 guided to a color wheel 16. The color wheel 16 separates the light into one of three color components at a time, and then the separated color component is guided to the light valve 24. The light valve 24 is controlled to modulate the individual color components. Stanton's device suffers from at least the same problems as those listed for the conventional system as depicted in Figure 9 of the present specification. Namely, such a system, while perhaps satisfactory for displaying high saturation colors, is not satisfactory for displaying images requiring high luminance.

The Examiner purports to modify Stanton's device with the device as described in Sampsell. However, Sampsell describes, at best, a situation described regarding the conventional system as depicted in Figure 10 of the present specification. More specifically, Sampsell is directed toward system and method to enhance brightness of an image. Sampsell teaches that a color wheel may be used for temporal filtering of colors. In Sampsell, the color wheel includes a transparent region 16 in addition to the red, green, and blue regions 10, 12, and 14, respectively. See *Sampsell, Figures 1B and 1C*. The inclusion of the transparent region 16 allows a portion of the white light to be

preserved that so overall brightness may be raised. However, any inclusion of a transparent portion 16 necessarily corresponds to a reduction of saturation of colors. See *Sampsell*, column 1, lines 49-51.

The system described in *Sampsell* at least suffers from the same problems that exist with the conventional system as depicted in Figure 10 of the present specification. Namely, such a system, while perhaps satisfactory for images requiring high luminance, is not satisfactory for displaying images requiring high saturation.

Thus, modifying Stanton with the teachings of *Sampsell* amounts to nothing more than modifying the conventional system as depicted in Figure 9 with the conventional system as depicted in Figure 10. Clearly, such combination is improper and cannot teach or suggest all features of the claims as recited.

Moreover, Stanton and *Sampsell* teach away from each other. *Sampsell* clearly recognizes that a three-color field system like that described for Stanton favors color saturation over brightness. The goal of *Sampsell* is to provide a color projection system that provides better brightness.

Sampsell clearly recognizes that there is an inherent tradeoff between providing better brightness and color saturation. In other words, Sampsell recognizes that emphasizing one (such as saturation) necessarily results in drop off of the other (such as brightness). Therefore, because Sampsell is directed towards providing better brightness (by including a transparent section to the color wheel) teaches away from the system described in Stanton, which clearly favors saturation. Clearly, Stanton and Sampsell cannot be combined since they teach away from each other.

Further, as noted in the March 24 Reply, Stanton cannot be relied upon to teach or suggest the feature of "means for guiding the light having passed through the sequential selecting means in said white light to said special light modulator." In the non-final Office Action dated December 24, 2003, the Examiner asserted that the light valve drive 26 of Stanton is equivalent to the means for guiding light as claimed. In the March 24 Reply, Applicant demonstrated that the light valve drive 26 cannot be equivalent to the means for guiding light as claimed.

It appears that the Examiner agrees. In the final Office Action, the Examiner asserts that the citation of the light valve drive 26 is a typographical error. *See final Office Action, page 2, Item 1, third paragraph.*

However, the Examiner asserts that the light guiding function is met by the wheel drive system 18 of Stanton. First, it should be noted that this is the first time the Examiner made such an assertion - the color wheel 18 being equivalent to the means for guiding light as recited in the claims. Therefore, the **finality of the current Office Action should be withdrawn.**

Second, contrary to the Examiner's assertion, even the wheel drive system 18 cannot be equivalent to the means for guiding the light as claimed. As the Examiner notes, the wheel drive system 18 merely rotates the color wheel 16 so that the light from the lamp 12 is filtered by the colored segments of the wheel 16, and the filtered light then impinges on the light valve 24. *See Stanton, Figure 1; column 2, lines 60-63.* There is no light guiding function performed by the wheel drive system 18.

Also, as noted in the previous March 24 Reply, Stanton and Sampsell cannot teach or suggest a feature of "means for adjusting the temporal average intensity of the white light."

More specifically, it was demonstrated that in Sampsell, the size of the transparent region 16 of the color wheel is fixed. For example, depending on the design, the size of the transparent region 10 may be 10% (See *Sampsell, Figure 1B*) or 25% (See *Sampsell, Figure 1C*). Regardless, the size of the transparent region is purely a design decision, and therefore adjusting the temporal average intensity of the white light is impossible when Sampsell's device is in operation.

In response, the Examiner asserts that Sampsell does disclose such a feature and relies upon column 4, lines 5-38 of Sampsell. See *final Office Action, page 2, Item 1, last paragraph continuing to page 3*. Applicant notes that the relied portion of Sampsell describes the embodiments of Figures 3A and 3B of Sampsell. However, these embodiments are not analogous to the invention as claimed. More specifically, the devices as shown in Figures 3A and 3B perform **spatial filtering**, not **temporal filtering**. Thus, the teachings of the relied upon portion is not applicable to the claims.

Moreover, even the relied upon portions, at best, only teach fixed averaging of the intensity. For example, as noted, the filters 32, 34, and 38 reflects a specific portion of the

original light, such as 90%, and the remaining portion is passed through the filter 38 - i.e., 10% of the original beings intensity. Thus, even in this spatial filtering disclosure, the amount of light filtered is a design decision and cannot be changed during operation. Therefore, the Examiner's reliance on this portion of Sampsell is in error.

For at least the reasons stated above, independent claim 1 is distinguishable over Stanton and Sampsell. Claim 9 also recites one or more similar features as independent claim 1. Therefore, independent claim 9 is also distinguishable over the combination of Stanton and Sampsell.

Independent claim 11 also recites one or more features similar to independent claims 1 and 9. For example, independent claim 11 recites, in part, "a light intensity adjuster configured to dynamically adjust an intensity of the reflected light." Therefore, independent claim 11 is also distinguishable over the combination of Stanton and Sampsell.

Claims 3-8, 10, 12-14, and 19 depend from independent claims 1, 9, or 11, directly or indirectly. Therefore, for at least the reasons stated with respect to the independent claims, these dependent claims are also distinguishable over the

combination of Stanton and Sampsell. In addition, the dependent claims are also allowable on their own merits. For example, claim 3 recites, in part "means for generating the white light includes means for combining the light **reflected** at the sequential color selecting means." *emphasis added*. The Examiner responded that Sampsell does disclose such a feature and again relied upon column 4, lines 5-38 of Sampsell. *See final Office Action, page 3, last paragraph continuing to page 4.*

As noted above, it has been demonstrated that the relied upon portion is not analogous to the claims as recited. Further, even in this instance, a pass through the red, blue, green, and white filters 23, 34, 38, and 36, respectively, and detected by the modulators 18A, 18B, 18C, 18D, respectively. There is no disclosure that any light is "reflected" in the relied upon portion. Therefore, the Examiner's reliance is misplaced.

Indeed, the Examiner's reliance on the cited portion as the basis of rejecting the claims cannot be sustained.

For at least the above stated reasons, claims 1, 3-15, and 19 are distinguishable over the combination of Stanton and Sampsell. Applicant respectfully requests that the rejection of



claims 1, 3-15, and 19 based on Stanton and Sampsell be withdrawn.

§ 103 REJECTION - STANTON, SAMPSELL, BOS

Claims 2 and 16 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Stanton in view of Sampsell and in further view of Bos, et al. (USP 5,387,920, hereinafter "Bos"). *See final Office Action, page 11, Item 4, continuing to page 12.* Applicant respectfully traverses. It is noted that claims 2 and 16 dependent from independent claims 1 and 11, respectively. It has also been demonstrated that independent claims 1 and 11 are distinguishable over Stanton and Sampsell. Bos has not been, and indeed cannot be, relied upon to correct for at least the deficiencies of Stanton and Sampsell. Therefore, independent claims 1 and 11 are distinguishable over the combination of Stanton, Sampsell, and Bos.

Due to at least the dependencies thereon as well as on their own merits, claims 2 and 16 are also distinguishable over the combination of Stanton, Sampsell, and Bos.

U.S. Application No. 09/933,198

Docket No. 1190-0508P

August 12, 2004

Art Unit: 2614

Page 25 of 26

Applicant respectfully requests that the rejection of claims 2 and 16, based on Stanton, Sampsell, and Bos, be withdrawn.

**CONCLUSION**

All objections and rejections raised in the Office Action having been addressed, it is respectfully submitted that the present application is in condition for allowance. Should there be any outstanding matters that need to be resolved, the Examiner is respectfully requested to contact Hyung Sohn (Reg. No. 44,346), to conduct an interview in an effort to expedite prosecution in connection with the present application.

U.S. Application No. 09/933,198

Docket No. 1190-0508P

August 12, 2004

Art Unit: 2614

Page 26 of 26

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

BIRCH, STEWART, KOLASCH &, BIRCH, LLP

By:

  
Michael R. Mutter

Reg. No. 29,680

HNS

MKM/HNS/lab  
1190-0508P

P.O. Box 747  
Falls Church, VA 22040-0747  
(703) 205-8000